

Summary of the 2001 Stormwater Management Manual for Western Washington

The Washington Department of Ecology has recently published a new stormwater manual. The manual is published as a guidance document for municipalities in western Washington. The Puget Sound Water Quality Management Plan requires local governments in the Puget Sound Basin to adopt the updated manual or an equivalent manual by March 2003. NPDES Phase I municipalities are required to adopt an equivalent manual. USEPA Phase II rules require Ecology to publish a menu of BMPs that is appropriate for local conditions.

The manual generally applies to new development and redevelopment of industrial, commercial, residential sites and road projects. It includes Minimum Requirements and Best Management Practices (BMP's). The guidance in the manual become requirements for projects through permits issued by local, state, and federal governments.

Here are the key concepts and changes in the manual:

- **Thresholds** for the application of BMP's are written to allow for more appropriate sizing and placement of flow control and treatment BMP's. Fewer projects (as compared to previous manual) will require engineered structures, but more projects will be required to apply appropriate BMP's. (See Volume I: Section 2.4; Section 2.5.6; Section 2.5.7)
- **Redevelopment** projects generally have the same requirements for any new impervious surfaces as new development projects for their new impervious surfaces. Replaced impervious surfaces in redevelopment projects are subject to stormwater requirements only if a 50% cost (sites) or 50% area (roads) thresholds are exceeded. Surfaces outside of project limits are not subject to stormwater requirements. (See Volume I: Section 2.4.2)
- **New BMPs** have been added for controlling **erosion** from construction sites (Volume II) and for preventing stormwater pollution at its **sources** (Volume IV).
- **"Onsite" BMPs** are specified to reduce hydrologic disruption and inappropriate sizes of treatment & flow control facilities (Vol.V, Chapter 5; and Vol. III, Section 3.1).
- **Higher levels of treatment** are required for most discharges to lakes and streams from industrial, commercial, multifamily sites and from highways/arterials to reduce the incidence of discharges harmful to fish and other aquatic life (Vol.V, Chapter 3).
- **Flow control requirements** now address matching the duration of peak flows. This requires the use of continuous runoff modeling. It results in retention and detention facilities that are significantly larger than required by the 1992 manual. (Volume I, Section 2.5.7; and Volume III)
- **An hydrology model that predicts runoff** for all areas of western Washington has been developed using Hydrologic Simulation Program – Fortran (HSPF). Ecology will add features to the model including a pond sizing routine.

Phase II Municipal NPDES Permit Communities

<p>Mandatory Coverage <i>(Census Urban Areas)</i>¹ The Phase II regulations require coverage for communities in Urban Areas, as defined in the 2000 Census</p> <p>Algona Auburn Beaux Arts Bellevue Bellingham Bonney Lake Bothell Bremerton Brier Burien Clyde Hill Covington Des Moines DuPont Edgewood Edmonds Enumclaw Everett Federal Way Fife Fircrest Gig Harbor Hunts Point Issaquah Kelso Kenmore Kennewick Kent Kirkland Lacey Lake Forest Park Lakewood Longview Lynnwood</p>	<p>Maple Valley Marysville Medina Mercer Island Mill Creek Milton Millwood Mountlake Terrace Mukilteo Newcastle Normandy Park Olympia Pacific Pascoe Port Orchard Puyallup Redmond Renton Richland Ruston Sammamish SeaTac Selah Shoreline Spokane Steilacoom Sumner Tukwila Tumwater Union Gap University Place Vancouver West Richland Woodinville Woodway Yakima Yarrow Point</p> <p><u>The Urban Area of the following counties:</u> Benton County Cowlitz County Franklin County Kitsap County</p>	<p>Spokane County Thurston County Whatcom County Yakima County</p> <p>Potential Designation: <i>(Communities with greater than 10,000 population must be evaluated for coverage).</i> In addition to those communities that require mandatory coverage Ecology must evaluate communities with more than 10,000 population and a density of 1,000 persons per square mile or greater. Note – Some of these communities could be designated as Urban Areas in the 2000 Census</p> <p>Aberdeen Anacortes Arlington Bainbridge Island ² Camas Centralia Chehalis Ellensburg Enumclaw Monroe Moses Lake Mount Vernon Oak Harbor Port Angeles Pullman Sunnyside Walla Walla Wenatchee</p>
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¹ These areas are listed as Urban Areas in the 1990 Census, or are new cities incorporated within existing Urban Areas after the 1990 Census. The 2000 Census may include additional cities not listed here.

² Bainbridge Island is over 10,000 population, but does not currently exceed the 1,000 per square mile density threshold.